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2019 Bear Creek Reservoir Fisheries Management Report

Bear Creek Reservoir is a 46-acre municipal water supply impoundment serving the Town of Wise. A variety of fish species are available to anglers, including largemouth bass, black crappie, bluegill, channel catfish, and trout.

A Virginia freshwater fishing license is required to fish the lake, and a trout-fishing license is required from October 1st through June 15th. A boat ramp, restrooms, and picnic facilities are available and are administered by the Town of Wise. The use of gasoline-powered motors is prohibited on Bear Creek Reservoir. From October 1st – June 15th, fishing is permitted from 5:00 am until one (1) hour after sunset. From June 16th – September 30th, fishing is permitted from one (1) before sunrise until 12:00 midnight.

Regulations

The fish populations in Bear Creek Reservoir are currently managed under the following regulations:

Species	Length limit	Creel limit
Largemouth Bass	Catch-and-Release only	No harvest
Sunfish	none	25 per day
Catfish	15 inches	5 per day
Trout	7 inches	6 per day

Stocking

Most of the fish populations are self-sustaining, meaning that they reproduce in the lake and maintain fishable populations. However, catchable-size trout are stocked in the lake five times from October through May. Additionally, catchable-size channel catfish are stocked into Bear Creek Reservoir each year, usually in the fall.

Population Sampling

The fish populations in Bear Creek Reservoir were sampled in May 2018 using boat-mounted electrofishing gear. Fish collected during these population surveys were identified by species, measured, and weighed, before being released back into the lake. The data collected during the annual samples provide biologists with important information about the relative abundance (number of fish collected per hour of sampling) and size structure of the various fish populations. Annual monitoring efforts allow biologists to assess trends in the fish populations over time.

Largemouth Bass - Largemouth bass were the most abundant fish species collected in the 2018 electrofishing sample. The electrofishing catch rate of 53.9 fish per hour (fish/h) was down from the catch rate observed in 2016 (90.4 fish/h). Largemouth bass observed during the 2018 sample ranged in length from 3 to 15 inches with an average length of about 10 inches (Figure 1). Forty-three percent of the adult largemouth bass exceeded 12 inches and 4% were 15 inches or larger.

Relative weight is an index used by fisheries biologists to evaluate the overall condition or plumpness of a fish. This index compares a fish's weight to a size-specific standard weight developed for a particular species. In other words, the index compares what a fish actually weighs to what it should weigh based on its length. A relative weight of 100 means that a fish weighs exactly what it should weigh. Relative weight values well below 100 may indicate food or feeding limitations. Relative weights for largemouth bass in Bear Creek Reservoir in 2018 ranged between 61 and 105 with an average of 79 (Figure 2). This was similar to the average relative weight observed in 2016. About 60% of the largemouth bass in the 2018 sample had relative weights below 80 and 13% were below 70.

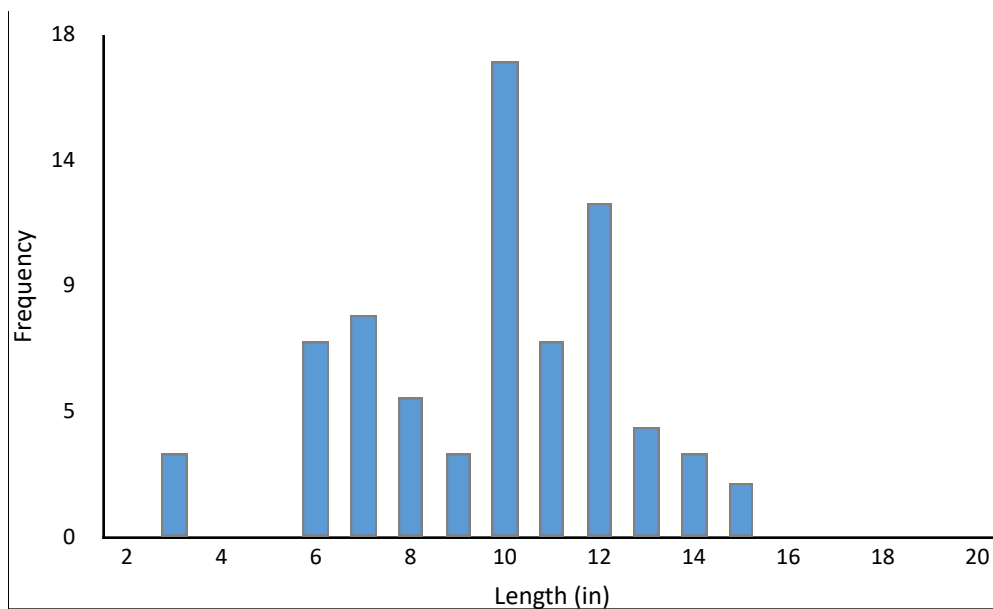


Figure 1. Length frequency distribution of largemouth bass collected during Bear Creek Reservoir electrofishing samples in spring 2018.

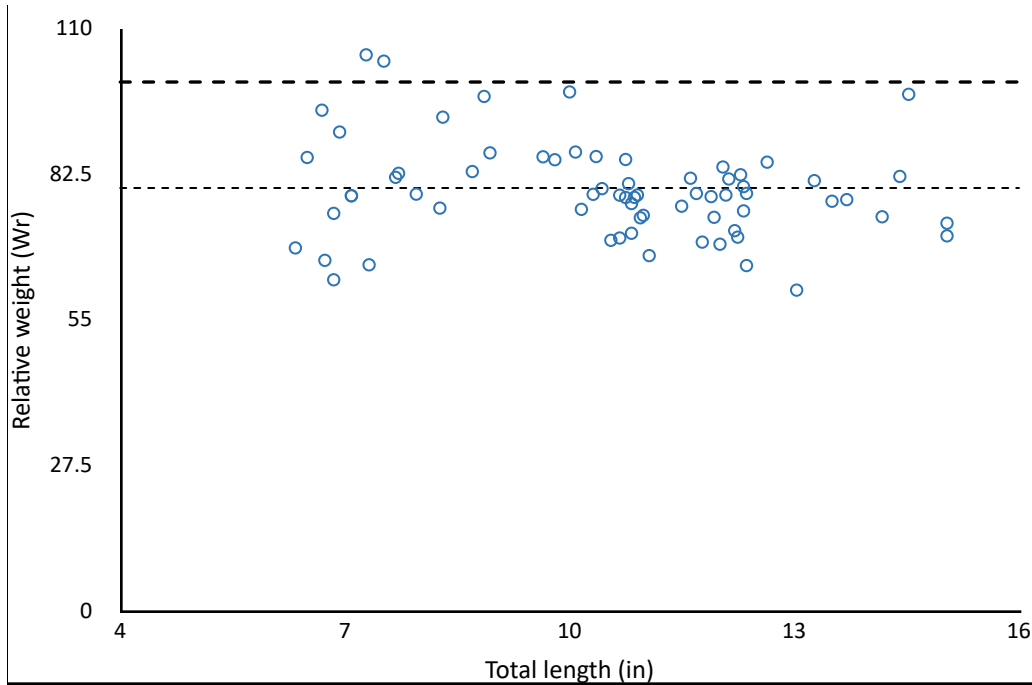


Figure 2. Relative weight versus length for largemouth bass collected during Bear Creek Reservoir electrofishing samples in spring 2018.

Sunfish - Bluegills are the dominant sunfish species, although the catch rate in the 2018 sample was low (8.4 fish/h). The bluegill catch rate in 2016 was 25.6 fish/h.

Other species - Channel catfish are generally not sampled well during the spring electrofishing samples so their absence in the 2018 sample does not accurately reflect their abundance in the reservoir. Black crappie are present in the Bear Creek Reservoir, but their abundance is generally low.

For more information on the fishery, contact Jeff Williams by telephone (276) 783-4860 or by e-mail jeff.williams@dgif.virginia.gov